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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/670,472	09/26/2003	Wenbin Ma	WO-LUD 5780.2/10312064	8454
7590 11/16/2006			EXAMINER	
Fulbright & Jaworski L.L.P. Market Square 801 Pennsylvania Avenue, N.W. Washington, DC 20004-2623			JOYCE, CATHERINE	
			ART UNIT	PAPER NUMBER
			1642	

DATE MAILED: 11/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/670,472

Applicant(s)

MA ET AL.

Examiner

Catherine M. Joyce

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) 5-27 and 32-44 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 28-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. The Amendment filed August 24, 2006 in response to the Office Action of April 25, 2006 is acknowledged and has been entered. Claims 1-4 and 28-31 are currently being examined.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. The following rejections are being maintained:

Claim Rejections - 35 USC 112

4. Claims 1-4 and 28-31 remain rejected under 35 USC 112, first paragraph, for the reasons set forth previously in the Paper mailed April 25, 2006, Section 6, pages 8-9.

Applicant argues that the specification discloses how to predict the ligation strength of the peptides for HLA molecule by using the SYFPEITHI database and the BIMAS database. Applicant further argues that the George reference cited in the Office Action is discussing a different peptide than those claimed in the instant case and that the mutated amino acid in the other peptide was known to be a contact amino acid of that peptide and Applicant's have taught that for a different antigen, the NY-ESO-1 antigen, a T-cell clone retained its recognition after substitution of the terminal position 9 amino acid.

Applicant's arguments have been considered but have not been found to be persuasive. Although, the specification teaches how to predict the ligation strength of the peptides for HLA molecule by using the SYFPEITHI database and the BIMAS database, the specification also teaches that, for the one peptide with a varying amino acid position for which prediction data was provided based on this method, ALKDVEERA (SEQ ID NO:5), a binding affinity was predicted that was only 72% of the predicted binding affinity for the exemplified peptide of ALKDVEERV (SEQ ID NO:3). One of skill in the art could not predict that such a difference in binding affinity, 72% versus 100%, would allow the peptides to function in a similar manner as contemplated

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by the specification. Applicant's arguments that the cited George reference refers to modifications of the tested peptide wherein contact residues were substituted is not found to be persuasive because the proposed contact residues for the exemplified ALKDVEERV (SEQ ID NO:3) are not taught in the specification and thus one of skill in the art could not predict whether the 9th terminal position of the exemplified peptide is or is not a contact residue and likely to affect function of the exemplified peptide. Further, Applicant's arguments that the specification teaches that for an NY-ESO-1 tumor antigen, a T-cell clone retained its recognition after an amino acid substitution at position 9 of the peptide is not found to be persuasive because the peptide is not shown to be a related peptide to the exemplified peptide and thus the peptides are like to interact with both HLA molecules and T-cell receptors in fundamentally different ways.

5. No claims are allowed.

6. **THIS ACTION IS MADE FINAL.** See M.P.E.P. § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

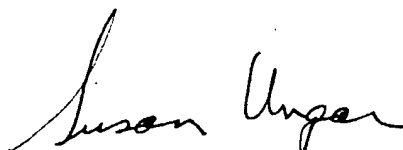
A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Catherine M. Joyce whose telephone number is 571-272-3321. The examiner can normally be reached on Monday thru Friday, 10:15 - 6:45.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Siew can be reached on 571-272-0787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8700.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


SUSAN UNGAR, PH.D
PRIMARY EXAMINER

Catherine M. Joyce
Examiner
Art Unit 1642

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